

A' cont.
the width of the semiconductor substrate **21** are simply referred to as "longitudinal direction" and "width direction", respectively.) A negative electrode **26** is provided on the entire lower surface of the semiconductor substrate **21**. Figure **6** is exaggerated so that the longitudinal length of the semiconductor substrate **21** is schematically shorter than the width thereof.

IN THE CLAIMS

Cancel claims ~~2~~ and ~~15-19~~ without prejudice or disclaimer of the subject matter contained therein.

Please amend the following claims:

1. (Amended) A semiconductor laser element, comprising:
a semiconductor laser region including a plurality of identical laser emission portions arranged side by side in a parallel array, each of said laser emission portions including an active layer for emitting light;

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a multimode interference region including a first wave-guiding layer, wherein one end of the first wave-guiding layer is equidistantly optically coupled to the active layers of the plurality of laser emission portions; and
an output waveguide region including a second wave-guiding layer, the second wave-guiding layer being optically coupled to an opposite end of the first wave-guiding layer of the interference region.

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3. (Amended) A semiconductor laser element according to claim 1, wherein the semiconductor laser region, the multimode interference region,

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cont. and the output waveguide region are provided on a same semiconductor substrate.

9. (Amended) A semiconductor laser element according to claim 1, wherein the active layer of the plurality of laser emission portions, the first wave-guiding layer of the multimode interference region, and the second wave-guiding layer of the output waveguide region are integrally formed of a same type of semiconductor material.

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10. (Amended) A semiconductor laser element according to claim 1 and additionally comprising,

an input waveguide region located between the semiconductor laser region and the interference region, and including a plurality of mutually spaced apart substantially equal length third wave-guiding layers for optically coupling the active layers of the plurality of laser emission portions and the first wave-guiding layer of the multimode interference region.

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cont. 2
12. (Amended) A semiconductor laser element according to claim 10, wherein the first wave-guiding layer and the plurality of third wave-guiding layers are comprised of substantially non-optically absorptive material.

A6
20. (Amended) A semiconductor laser element according to claim 28, wherein:
a dielectric film is provided between the plurality of active layers of the laser region and the plurality of second wave-guiding layers of the input waveguide region; and

wherein the plurality of active layers of the laser region and the plurality of second wave-guiding layers of input waveguide regions are optically coupled to each other through the dielectric film.

21. (Amended) A semiconductor laser element according to claim 28, wherein the first wave-guiding layer and the plurality of second wave-guiding layers are comprised of the same material having a low light absorption.

22. (Amended) A semiconductor laser element according to claim 21, wherein the first wave-guiding layer and the plurality of second wave-guiding layers are comprised of AlGaAs.

23. (Amended) A semiconductor laser element according to claim 28, wherein each of the plurality of second wave-guiding layers of the input waveguide region has a predetermined equivalent refractive index.

24. (Amended) A semiconductor laser element according to claim 28, wherein each of the plurality of second wave-guiding layers has a predetermined width.

25. (Amended) A semiconductor laser element according to claim 24, wherein a manufacturing accuracy in the width of each of the plurality of second wave-guiding layers with respect to the predetermined width is $0.05\text{ }\mu\text{m}$ or smaller.

26. (Amended) A semiconductor laser element according to claim 28,
wherein the geometric pattern of the plurality of second wave-guiding layers is
made by a reduction exposure method.

27. (Amended) An electronic device including the semiconductor laser
element of claim 28, which outputs a modulated signal to the semiconductor
laser element.

Please add the following new claim:

--28. A semiconductor laser element, comprising:

a semiconductor laser region including a plurality of like laser oscillation
portions arranged side by side, and having a common modulation electrode for
operating in a single mode, each of said laser oscillation portions having an
active layer which performs laser operations at a same wavelength;

a multimode interference region including a first wave-guiding layer
coupled to said laser oscillation portions via an input waveguide region
including a plurality of parallel equal length waveguides having respective
second wave-guiding layers;

wherein the active layer of the plurality of laser oscillation portions, the
first wave-guiding layer of said multimode interference region, the second
layers of the input waveguide region, and the third layer of the output
waveguide region are formed on a common substrate.--